In the Matter of	)	
	)	
Amendment of Part 97 of the Commission's	)	
Rules Governing the Amateur Radio Service	)	RM-11306
Concerning Permitted Emissions and	)	
Control Requirements	)	

To: The Chief, Wireless Telecommunications Bureau
VIA OFFICE OF THE SECRETARY

Reply to Comments of CQ Communications, Inc.

By Donald B. Chester, K4KYV
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15 February, 2006

I. Introduction

Although *I do not concur with CQ Communication's position supporting the concept of regulation by bandwidth rather than by mode*, I generally agree with many of CQ's comments to the petition by ARRL. If the Commission elects to accept the proposal to regulate by bandwidth, I agree with CQ that a proposed exemption on the basis of mode would be inconsistent with the basic concept. Furthermore, this would leave the status of any "exempted" mode tentative at best. I also agree that, regardless of whether regulation is based on bandwidth or emission mode, it must necessarily be augmented by volunteer band planning, and that the Commission should strongly encourage operators to comply with established

band plans by putting band plans on the same plane as repeater coordination.

II. Regulation by bandwidth

I concur with both ARRL and CQ Communication, that if the Commission elects to regulate by bandwidth, it should be based on *necessary bandwidth* rather than *occupied bandwidth*. This would avoid requiring amateurs to possess the means to accurately measure the actual bandwidths of signals, and would avoid strictly limiting the transmitted bandwidths of amateur signals to specific figures, while retaining the existing requirement that occupied bandwidth be within the limits of good amateur and engineering practice, based on the necessary bandwidth of the mode of emission being used.

I concur with CQ that the amateur rules should not discourage experimentation with future modes that may occupy more than an arbitrary figure of 3.5 kHz of bandwidth. Furthermore, amended rules should not place any new restrictions on the use of incumbent modes authorized to exceed this bandwidth under the present rules. CQ suggests two possible approaches to regulating bandwidth: (1) to create additional segments where broader signals are permitted or (2) to authorize a maximum bandwidth larger than 3.5 kHz wherever modes that fall under the present definition of "phone" are permitted.

I disagree with CQ's preferred approach, to further subdivide the HF bands to include additional segments on which bandwidths of up to 9 kHz would be permitted. ARRL has proposed to create segments in the amateur bands below 28.0 mHz based on three figures of bandwidth: 200 Hz, 500 Hz and 3.5 kHz (in addition to the 9 kHz exemption for type A3E emission). This is already too much segmentation, and CQ's approach would include even more segmentation by adding one more subband based on a figure of 9 kHz of bandwidth. While neither ARRL nor CQ even mentions the topic of segmentation based on licence class, it is to be assumed that licence class subdivision would be retained in some form. The result would be an overly complicated and restrictive matrix of subbands based on a combination of licence class and bandwidth, which would be an impediment to amateurs' use of their allocated spectrum. If the concept of regulation by bandwidth is accepted by the Commission, each band should be subdivided into no more than two segments: one for narrowband modes with a maximum necessary bandwidth of 500 Hz, and the other for wideband modes with a maximum necessary bandwidth of 9 kHz. Further subdivision between 200 and 500 Hz, and between 3.5 and 9 kHz, would serve no useful purpose. The Commission should not be called upon to regulate amateur licensees' use of their spectrum to that great a detail.

III. Additional restrictions should not be imposed on incumbent amateur privileges

CQ's proposal to create additional segments that would accommodate modes with necessary bandwidths up to 9 kHz, would allow amateurs to continue using double-sideband AM, frequency/phase modulation and independent sideband. However, these incumbent modes would be restricted to specific segments at the high-frequency ends of the HF bands, segments that would be much smaller than the range of frequencies where these modes are presently allowed to operate. This would represent a loss of existing privileges for modes that are presently authorized to operate on any frequency where "phone" is permitted. Amateurs using double-sideband AM emission in the 3.5-4.0 mHz band would be particularly affected, since they would be required to discontinue operating on frequencies they have historically used for many years. Moreover, some of these amateurs would face a substantial financial loss of their investment in oscillator crystals they have accumulated for use in crystal-controlled transmitters.

IV. Amateurs do not have full use of 3.950-4.000 mHz

CQ proposes to limit signals in the 75-metre band, with necessary bandwidths between 3.5 kHz and 9.0 kHz, to 3.950-4.000 mMz. Amateurs must share this segment with high power HF broadcast stations located in ITU Regions 1 and 3. Under night-time conditions, interference from these broadcasters can be severe. Moreover, amateurs in the US have effectively lost use of 3.990-4.000 mHz during the evening hours because of interference from the DRM (Digital Radio Mondiale) station located in Germany, whose

digital signal almost daily generates a strong white-noise like interference that completely obliterates the top 10 kHz segment of this band.

V. Conclusion

If the Commission elects to regulate amateur emissions by bandwidth instead of modes of emission, each of the segmented HF bands should be divided into no more than two subbands: one for wideband modes with maximum necessary bandwidth of 9 kHz, and another for narrowband modes with maximum necessary bandwidth of 500 Hz. These segments should be structured to be an overlay to the recognized IARU band plan for ITU Region 2, with unattended semi-automatic transmissions further limited to a specific portion of the 9 kHz segment. Any additional segmentation can best be accomplished by amateur licensees themselves under a recognized band plan, in the same manner as presently recognized repeater coordination.

Respectfully submitted by: Donald B. Chester, K4KYV